

CLAIMS

What is claimed is:

1. A high-density readable only optical disk, comprising:
a substrate with pits; and
at least one mask layer with a super resolution near field structure, the at least one mask layer comprising a mixture of a dielectric material and metal particles.
2. The optical disk according to claim 1, wherein the dielectric material comprises one of metal oxide, nitride, sulfide, fluoride, and a mixture thereof.
3. The optical disk according to claim 1, wherein the dielectric material is ZnS-SiO₂.
4. The optical disk according to claim 1, wherein the metal particles are derived from gold, platinum, rhodium, palladium, or a mixture thereof.
5. The optical disk according to claim 1, wherein the metal particles are platinum particles.
6. The optical disk according to claim 1, further comprising one or more reflective layers disposed adjacent one of the substrate and the at least one mask layer.
7. The optical disk according to claim 1, further comprising dielectric layers on the upper and the lower surfaces of the mask layer.